

Guidance for Proposals

for October 2018 Atlantic Large Whale Take Reduction Team Meeting
to Modify the *Atlantic Large Whale Take Reduction Plan*
to Reduce Serious Injury and Mortality from Entanglement
of Right Whales, Fin Whales, and Humpback Whales
TO BE SUBMITTED BY SEPTEMBER 24, 2018

To facilitate comparison and review of alternatives, we recommend that proposals of up to five pages be submitted, using the following template:

1. Identify names and affiliations of proposal authors.

Cormac Hondros-McCarthy, LobsterLift LLC
Lauren Shum, LobsterLift LLC
Ted Zhu, LobsterLift LLC

2. Provide a short overview of the proposal. How will the changes you propose reduce injury and mortality to large whales? How did you make that determination? What fisheries are affected by your proposal? What is the practical outcome of your proposal (fewer vertical lines fished, seasonal or area reduction in lines, fewer strong lines fished, etc)?

The Lobster Lift is a lineless, self-surfacing, modular lobster trap retrieval system. Traps utilizing Lobster Lift sit entirely on the seafloor, never extend a line to the surface, and raise themselves only when needed. This eliminates the possibility of entanglement. In order to retrieve a trawl, a lobsterman sends an acoustic signal from a tracker on their boat to a module attached to their trawl. The module then releases air from a tank to inflate an attached balloon. The balloon increases in size until it can buoy the trawl to the surface, where it is retrieved per usual. Critically, our technology enables lobstermen to keep fishing the way they always have – important for encouraging adoption.

The Lobster Lift provides several benefits over existing techniques. The tracker on the boat can gauge the strength of signals sent from the module to triangulate its specific location. Locations plotted on a mobile application allow lobstermen to recover their traps more easily than with line-based techniques.

In addition, the Lobster Lift can aid regulators in optimizing use of marine resources while preventing overfishing. Because the Lobster Lift is location-aware, it can generate a map of all currently-placed trawls. This ensures that lobstermen can maintain their fishing territories without physical markers, which enables them to continue self-regulating and which can also be a monitoring tool for regulatory authorities.

3. Describe the management strategies you are proposing. Consider mitigation measures that can be combined or that can be separately selected for evaluation toward take reduction goals.

Our management strategy is focussed on removing the line altogether, thus solving the whale entanglement issue.

The LobsterLift devices can be setup to record a log of acoustic activity and help identify the frequency and location of whale movement. This data can help regulators adjust restricted fishing zones and times.

4. For each element you propose, address as many as you can of the following.

From our understanding, the vast majority of whale entanglement occurs off-shore. Ideally, vertical lines would be eliminated completely by way of widespread use of lineless lobster traps. We expect this to be a rollout, and will implement our lineless trap design over time. Cost of gear will increase, as our target price is \$150 per unit. Prototypes and first runs are expected to be more costly. The \$150 price point would occur once at full scale production, as well as development of low cost hydrophone and speakers.

Our underwater buoyless trap devices will be able to communicate acoustically with enforcement patrol boats, to identify their location, owner, and permit information. Enforcement boats will be able to scan large areas at a time to make enforcement an efficient process.

How to submit your proposal:

Send proposals by no later than **September 24, 2018**

to: Colleen.Coogan@noaa.gov by email, or

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Call Colleen with any questions related to the TRT meeting: 978 281-9181